



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

RBW6305G00431-3G

Job Sheet 175830



Part No: RBW6305G00431-3G

Job Qty: 4 ea

Part Name: Hoisting Flange Main Gear Box



Part Weight: 0 lbs

Status: Scheduled

Priority: Medium

Job Created: 4/11/18

Job Tracking No:

Due Date: 5/25/18

Created By: Marie Lajeunesse

Type: Stock

Description:

Note: DWG RBW6305G00431-3G Rev 4 IPP Rev A 18.04.10 new issue DP Verify DD

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup hrs	Run Hrs	Workcenter / Supplier	Lead Time	
100	Purchasing	4 pcs		5/24/18	0.00	0.00	Purchasing		AF 1806/04
110	Packaging	4 pcs		5/24/18	0.00	0.00	Packaging2		AF 1806/04
120	QC	4 pcs		5/24/18	0.00	0.00	QC6		25
130	Small Fab	4 pcs		5/25/18	0.00	2.00	Small Fab-4		MLC
140	QC	4 pcs		5/25/18	0.00	0.00	QC5		PD 1806-08
150	Packaging	4 pcs		5/25/18	0.00	0.00	Packaging3-1		ML
160	QC21-FG	4 Ea		5/25/18	0.00	0.00	QC21		DAS 1806-14

Part Op 100 - Issue PO to ARROW TECH MACHINE WORKS P/O: 39580 MANUFACTURE RBW6305G00431-3G AS PER
Descriptions: DWG -Certificate of conformity is required

130 - 1-Load test as per DWG sheet 5. 2-Engrave placard RB41011 using marktronic engraver as per note 1. 3-Install
RBW6305G00431-3G-7 decal 4-Assemble RBW6305G00431-3G-11, RBW6305G00431-3G-13 and RB41011 as per
DWG.

MAY 09 2018

DAS
13
9-89

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
RBW6305G00431-3GP	Hoisting Flange Main Gear Box	4 pcs (1 ea)	100-Purchasing	50 77621
3896T31	Ferule 1/16 X 3/8" - Aluminum	4 Ea (1 ea)	130-Small Fab	5054248
CL-2-C	Lanyard Wire	1 ft (.25 ea)	130-Small Fab	5026878
RB41011	Dart Tooling Placard, Aluminum	4 Ea (1 ea)	130-Small Fab	50 21040
RBW6305G00431-3G-7	Load 600kg	4 Ea (1 ea)	130-Small Fab	5067307

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
100-Purchasing	RBW6305G00431-3GP	4	0	0
130-Small Fab	3896T31	4	567	0
	CL-2-C	1	368	0
	RB41011	4	930	0
	RBW6305G00431-3G-7	4	0	0

Part Specifications

Specifications could not be found.



Container No: S077622



Part: RBW6305G00431 - 3G

Job No: 175830

Serial No/Batch: S077622

Revision: 4

Inspector:

Exp Date: 06/04/2018

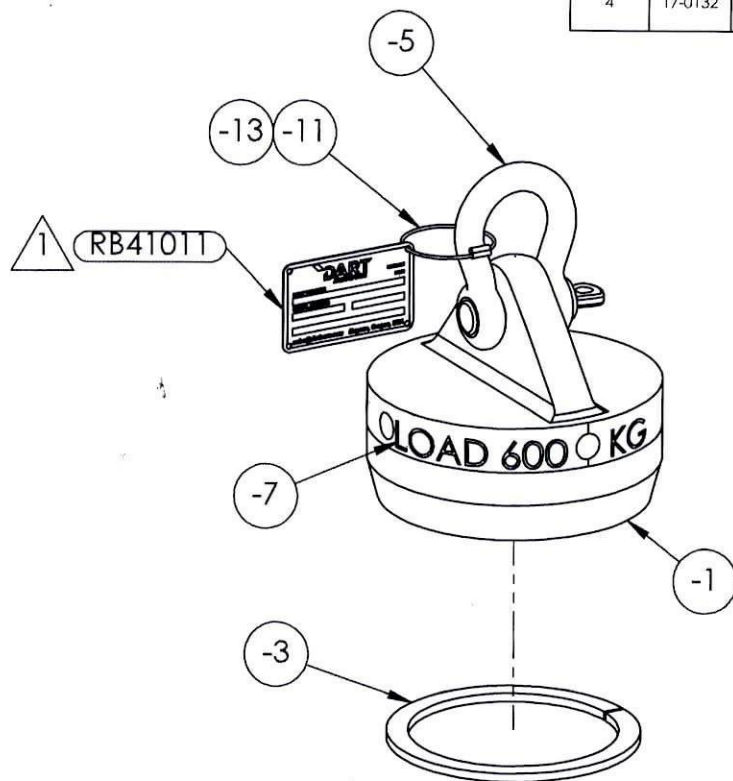
Instructions:

Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
CANADA
TEL.: 1 613 632-5200
Email: sales@dartaero.com
www.dartaerospace.com

Date: 06/04/18

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REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
1		SHEET 2, ADDED 2.725 REF DIM. AND EQUALLY SPACED @ 90° CALLOUT. SHEET 3, SLOT FROM .10 TO .070.	2/3/12	JAG	
2	14-0226	UPDATED DWG SHEETS TO DART. -1 ADDED SPHERICAL RADIUS 1.00, DELETED 4X R.56 AT BASE OF FLAT. -9 CH'D PLACARD FROM RED BARN PLACARD TO DART PLACARD.	12/22/14	RJC	JAG
3	16-0255	UPDATED TO NEW STANDARDS. CH'D NOTE 1 SHEET 1 WAS SWL 600 KG IS SWL 600 KG / 1325 LBS. CH'D NOTE 2 SHEET 1 WAS TEST TO 1200 KG IS LOAD TEST TO 1200 KG / 2650 LBS. -1 CH'D MATERIAL WAS 4140 IS 4140/4142; ADDED HEAT TREAT; ADDED NOTES. -3 CH'D DIM WAS (.188) IS .19. -7 CH'D SHEET TOLERANCES WAS $\pm .005/\pm .01/\pm .1$ IS $\pm .010/\pm .03/\pm .1$. -9 DELETED P/N. ADDED WEIGHT TEST SHEET TO DWG.	12/5/2016	SM	JAG
4	17-0132	-1 CH'D NOTE 1 ZINC PLATE SPEC WAS ASTM B633 TYPE II SC 2 IS ASTM B633 TYPE I SC2. -7 CH'D CALLOUT WAS 5/8" LETTERING IS 5/8" ARIAL FONT. ADDED NOTE 3, SHT 1. -11 CH'D B/O INFO WAS REID #CL2C IS CARR-LANE CL-2-C.	6/2/2017	RJC	JAG



CAGE CODE 3AL84

PART NUMBER
RBW6305G00431-3G

SERIAL NUMBER
S/N _____

DATE TESTED

SWL 600 KG / 1325 LBS

sales@dartaero.com Eugene, Oregon, USA

NOTES:

1. ENGRAVE WITH T/N, S/N, SWL 600 KG/1325 LBS., AND DATE TESTED.
2. LOAD TEST TO 1200 KG / 2650 LBS.
3. OEM REF. T/N: 3G6305G00431.

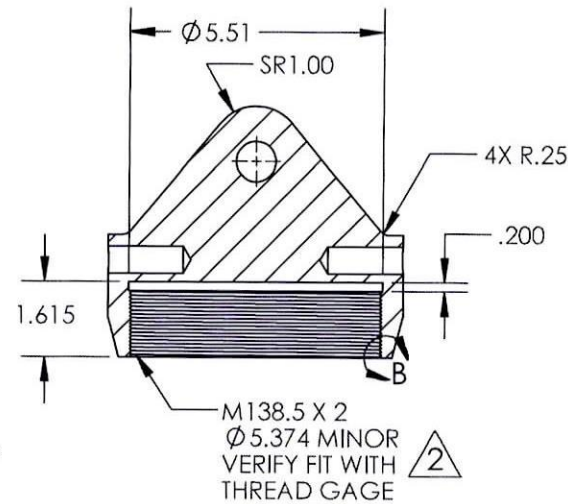
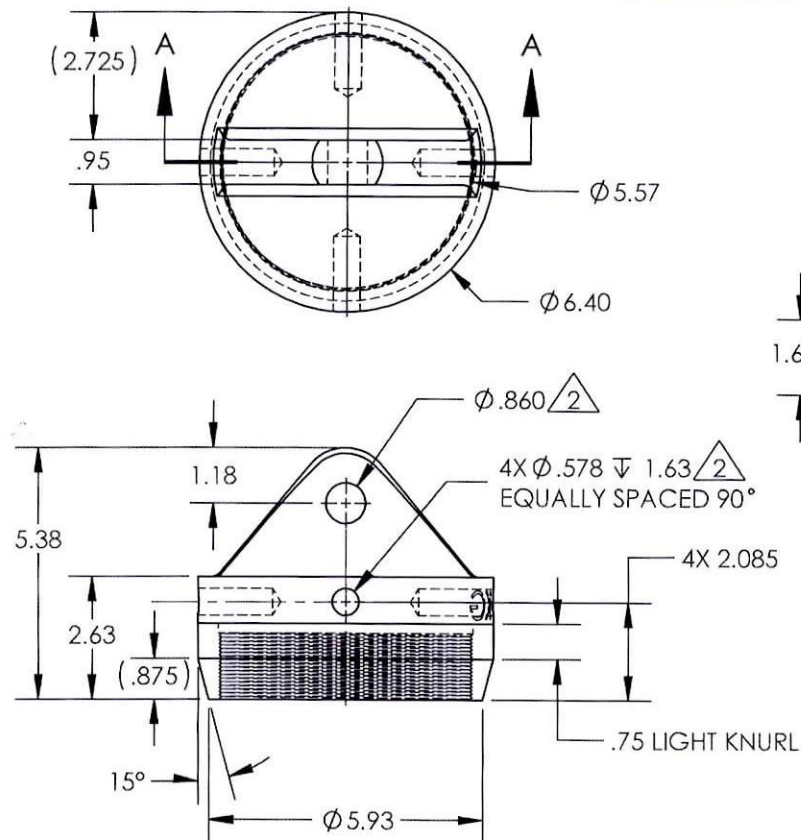
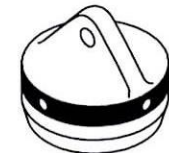
TITLE
HOISTING FLANGE MGB

DWG NO. RBW6305G00431-3G **REV** 4

MAT'L	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
HEAT TREAT	.XXX $\pm$.005 FRACTIONS $\pm$ 1/8
FINISH	.XX $\pm$.01 ANGLES $\pm$ 5°
SPEC	.X $\pm$.1 SURFACES = 125/
DRAWN BY: GILBERT	1. BREAK ALL SHARP EDGES .015 x 45° OR .015R
CHECKED: CLOUGH	2. DIMENSIONAL LIMITS APPLY AFTER PLATING
OPPS APPR: ANDERSON	3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009
QA APPR: LINDSAY	USED ON MODEL
APPROVED: GILBERT	AW139
SCALE 1:4	DATE 3/30/2011
SHEET 1 OF 5	

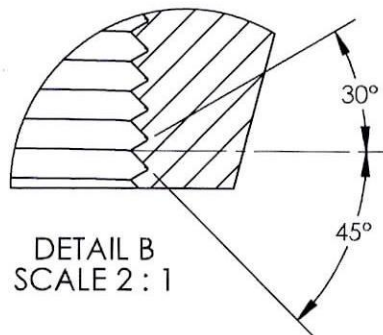
ASSY QTY	ASSY QTY	B/O	Part #	UNIT QTY	Description	Material	B/O INFORMATION OR SPECIFICATIONS	PG.
			-1	1	FLANGE	4140/4142		1
			-3	1	RING	NYLON		2
		B/O	-5	1	SCREW PIN SHACKLE	STEEL	5/8 (MCMASTER-CARR #3663T43)	3
		B/O	-7	1	LOAD 600 KG	VINYL	BLACK, CUT VINYL (SIGNS NOW)	1
		B/O	-11	1	LANYARD WIRE	STEEL	Ø1/16 X 3 (CARR-LANE #CL2C)	4
		B/O	-13	1	FERRULE	ALUMINUM	Ø1/16 X 3/8 (MCMASTER-CARR #3896T31)	1
		B/O		1	DART PLACARD	ALUMINUM	RB41011	1

REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
1		ADDED 2.725 REF DIM. AND EQUALLY SPACED @ 90° CALLOUT.	2/3/12	JAG	
2	14-0226	-1 ADDED SPHERICAL RADIUS 1.00, DELETED 4X R.56 AT BASE OF FLAT.	12/22/14	RJC	JAG
3	16-0255	-1 CH'D MATERIAL WAS 4140 IS 4140/4142; ADDED HEAT TREAT; ADDED NOTES.	12/5/2016	SM	JAG
4	17-0132	-1 CH'D NOTE 1 ZINC PLATE SPEC WAS ASTM B633 TYPE II SC 2; IS ASTM B633 TYPE I SC2.	6/2/2017	RJC	JAG



SECTION A-A

1. DUAL FINISH
1ST: ZINC PLATE, ASTM B633 TYPE I CLASS SC2.
2ND: POWDER COAT RED
2 NO POWDER COAT ON SURFACE.



DETAIL B
SCALE 2 : 1

(-1)

FLANGE



TITLE	HOISTING FLANGE MGB
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DWG NO. RBW6305G00431-3G-1

REV
4

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
XX $\pm .005$ FRACTIONS $\pm 1/8$
X $\pm .01$ ANGLES $\pm 5^\circ$
 $\pm .1$ SURFACES = 125/

.XXX + .005 FRACTIONS $\pm 1/8$

XX $\pm$.01 ANGLES $\pm$.5°

.X ± .1 SURFACES = 12

1. BREAK ALL SHARP EDGES
.015 x 45° OR .015R

2. DIMENSIONAL LIMITS APPLY

2. INTERPRET DIM AND TOL PER

3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009

USED ON MODEL

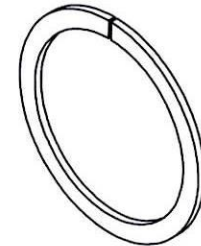
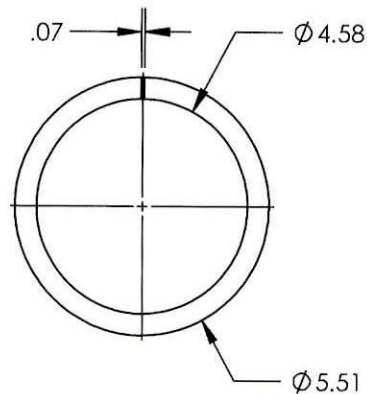
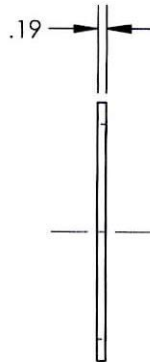
USED ON MODEL
AW139

	AVT159
04/22/14	04/22/14

24/2011 SHEET 2 OF

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REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
1		SLOT FROM .10 TO .070.	2/3/12	JAG	
3	16-0255	-3 CH'D DIM WAS (.188) IS .19.	12/5/2016	SM	JAG



(-3)
RING

DART AEROSPACE	
TITLE HOISTING FLANGE MGB	
DWG NO. RBW6305G00431-3G-3	REV 4
MAT'L NYLON	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
HEAT TREAT	.XXX ± .005 FRACTIONS ± 1/8
FINISH	.XX ± .01 ANGLES ± 5°
SPEC	.X ± .1 SURFACES = 125/✓
DRAWN BY: GILBERT	1. BREAK ALL SHARP EDGES .015 x 45° OR .015R
CHECKED: CLOUGH	2. DIMENSIONAL LIMITS APPLY AFTER PLATING
OPPS APPR: ANDERSON	3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009
QA APPR: LINDSAY	USED ON MODEL
APPROVED: GILBERT	AW139
SCALE 1:4	DATE 3/24/2011 SHEET 3 OF 5

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REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
3	16-0255	-7 CH'D SHEET TOLERANCES WAS $\pm .005/\pm .01/\pm .1$ IS $\pm .010/\pm .03/\pm .1$.	12/5/2016	SM	JAG
4	17-0132	-7 CH'D CALL OUT WAS 5/8" LETTERING IS 5/8" ARIAL FONT.	6/2/2017	RJC	JAG

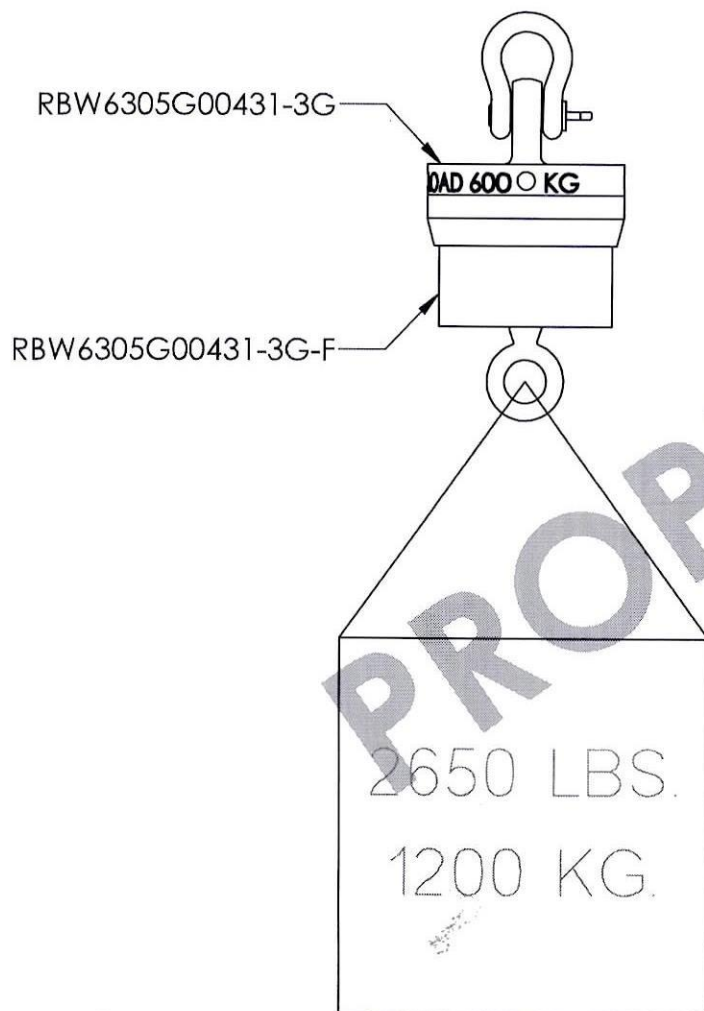
5/8" ARIAL FONT

LOAD 600 KG

(-7)
LOAD 600 KG

DART AEROSPACE	
TITLE HOISTING FLANGE MGB	
DWG NO. RBW6305G00431-3G-7	REV 4
MAT'L VINYL	UNLESS OTHERWISE SPECIFIED
HEAT	DIMENSIONS ARE IN INCHES
TREAT	.XXX $\pm$.010 FRACTIONS $\pm$ 1/8
FINISH	.XX $\pm$.03 ANGLES $\pm$ 1°
	.X $\pm$.1 SURFACES = 125/
SPEC	1. BREAK ALL SHARP EDGES
DRAWN BY: GILBERT	.015 x 45° OR .015R
CHECKED: CLOUGH	2. DIMENSIONAL LIMITS APPLY
OPPS APPR: ANDERSON	AFTER PLATING
QA APPR: LINDSAY	3. INTERPRET DIM AND TOL PER
APPROVED: GILBERT	ASME Y14.5M-2009
SCALE 1:4	USED ON MODEL
DATE 3/24/2011	AW139
SHEET 4 OF 5	

FIRST ARTICLE WEIGHT TEST



INSPECTION & TESTING PROCEDURES FOR THE RBW6305G00431-3G, HOISTING FLANGE MGB. THIS ASSEMBLY IS DESIGNED FOR HOISTING AND INSTALLING/REMOVING THE AW139 MGB. THIS ASSEMBLY SHOULD BE INSPECTED BEFORE EACH USE.

REPLACE ANY ITEMS THAT ARE DAMAGED OR SUSPECTED OF DAMAGE BEFORE USING!

FIRST ARTICLE WEIGHT TEST

1. AFTER INSPECTION, PLACE SLING ASSEMBLY ON A OVERHEAD LIFTING DEVICE. ATTACH TEST FIXTURE, RBW6305G00431-3G-F, TO RBW6305G00431-3G AND AN APPROPRIATE TEST WEIGHT OF 1200 KG / 2650 LBS.
2. LIFT WEIGHT FOR AT LEAST 5 MINUTES, CONTINUALLY CHECKING FOR CRACKS, DEFLECTION, OR DISTORTION.
3. REMOVE WEIGHT AND RE-INSPECT SLING, CHECKING FOR STRESS CRACKS, BENDING, OR DISTORTIONS.

INSPECTOR: _____
 TESTER: _____
 S.N.: _____
 DATE: _____

190 S. Danebo Ave., Eugene, OR. 97402 1-800-556-4166 e-mail: sales@dartaero.com dartaerospace.com			
TITLE HOISTING FLANGE MGB			
DWG NO. RBW6305G00431-3G	REV 4	CUSTOMER 1 OF 1	
SCALE 1:6	DATE 12/23/2015	SHEET 5 OF 5	

5/9/2018

PURCHASE ORDER



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER

PO039580

Supplier: ARR002-VU
Arrow Tech Machine Works
29751 E. Enid Road,
Unit C
Eugene, OR 97402 USA
Phone: 541-780-6938
Fax: 458-215-4938

PO No: PO039580

PO Date: 4/11/18

Due Date: 6/2/18

Purchase Order
Revision:

Revision Date:

Ship-To Contact: Phone:

Pymt Terms: Net 30

Freight Terms:

Special Comments:

REVISED

\$

Ship To:

Items											
Line Item	Part	Supplier Part No	Item No	Description	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (USD)	Extended Price
1	RBEGM-745-064P			Removal/Installation-Motor Pump Cartridge (Forward Main Tank) WO 175829 AND WO 175825	Firmed	5/11/18	2 Ea	0 Ea	2 Ea	\$1,736.93/Ea	\$3,473.86
2	RBW109-3130-85-133P			Tool Kit, Tail Rotor Pitch Control Shaft Bearing Remove/Install WO 175827 AND WO 175893	Firmed	5/25/18	2 Ea	0 Ea	2 Ea	\$1,766.68/Ea	\$3,533.36
3	RBEL133M-6503-101P			Mounting Tool	Firmed	5/18/18	2 Ea	0 Ea	2 Ea	\$1,753.73/Ea	\$3,507.46
4	RBD29828P			Elastomeric Bearing Removal Tool WO 175825	Firmed	6/4/18	2 Ea	0 Ea	2 Ea	\$551.91/Ea	\$1,103.82
5	RBW6305G00431-3GP			Hoisting Flange Main Gear Box WO 175830	Firmed	5/29/18	4 pcs	0 pcs	4 pcs	\$1,013.90/pcs	\$4,055.60
6	RBE117-11181W1P			Main Rotor Drive Mounting Tool WO 175881-WO 175882-WO 175883 WO 175885	Firmed	5/11/12	4 Ea	0 Ea	4 Ea	\$2,603.98/Ea	\$10,415.92
7	RBW6305G00132-3GP			AW139 Gimbal Bushing WO 175863, WO 175864, WO 175865	Firmed	5/29/18	3 pcs	0 pcs	3 pcs	\$1,080.39/pcs	\$3,241.17



ARROW TECH MACHINE WORKS

Certificate of Conformance

Your Purchase Order No:039850

Dated: 5/30/2018

Our Order / Job No:039580-5AWT

Order Qty: 4

Part Name: HOISTING FLANG MGB

Part Number: RBW6305G00431-3G

Lot Size:N/A Ship Date: 5/30/2018

We certify that these parts shipped to you are of domestic or international manufacture and conform to all requirements of the Purchase Order. These parts have been manufactured and inspected in accordance with all required specifications, instructions and drawings. Any applicable specifications are listed below:

Drawing Number: RBW6305G00431-3G

Rev:4

JB

Material Size and Type: -1 4140 STEEL, -3 NYLON

Material Specifications: 4140 ASTM A108, ASTM A29, NYLON ASTM D6779

Heat Treatment: RC28-32

Plating/Finish: ZING PLATE ASTM B633 TYPE I CLASS SC2 POWDER COAT RED

Mercury Contamination: The material used to process this order has not come in contact with mercury or mercury bearing instruments.

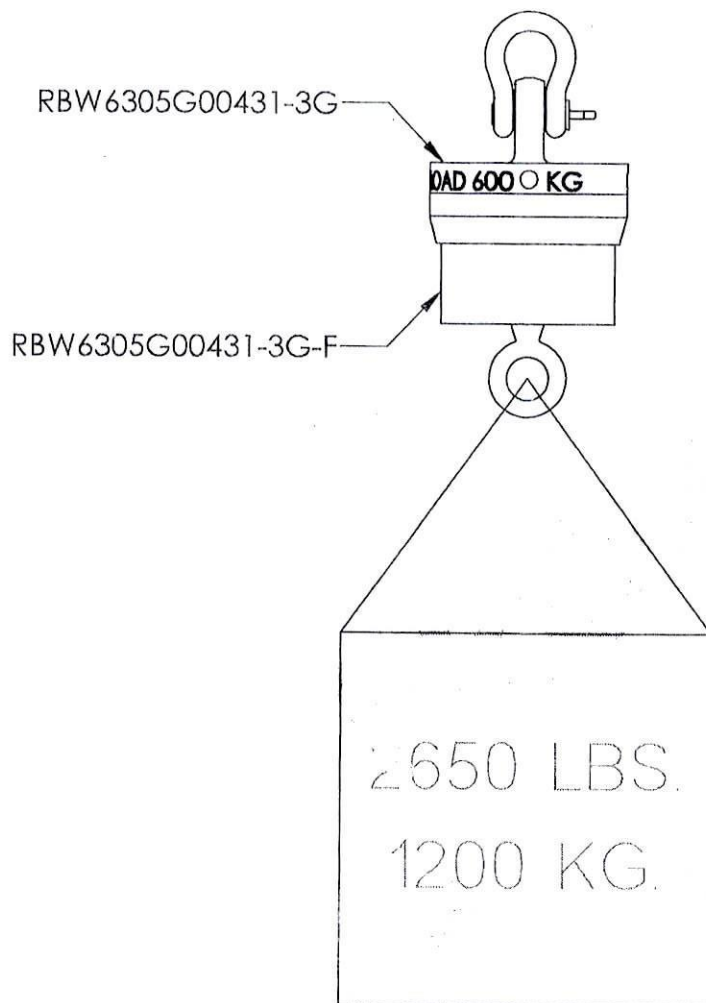
Date: 5/30/18

Signed: Hemant-m. Ladd

PHGE Machine Works LLC dba Arrow Tech Machine Works
29751 E. Enid Rd. Unit C Eugene, Oregon 97402
Main: (541) 780-6938 | Fax: (458) 215-4938
www.atechmachineworks.com

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FIRST ARTICLE WEIGHT TEST



INSPECTION & TESTING PROCEDURES FOR THE RBW6305G00431-3G, HOISTING FLANGE MGB. THIS ASSEMBLY IS DESIGNED FOR HOISTING AND INSTALLING/REMOVING THE AW139 MGB. THIS ASSEMBLY SHOULD BE INSPECTED BEFORE EACH USE.

REPLACE ANY ITEMS THAT ARE DAMAGED OR SUSPECTED OF DAMAGE BEFORE USING!

FIRST ARTICLE WEIGHT TEST

1. AFTER INSPECTION, PLACE SLING ASSEMBLY ON A OVERHEAD LIFTING DEVICE. ATTACH TEST FIXTURE, RBW6305G00431-3G-F, TO RBW6305G00431-3G AND AN APPROPRIATE TEST WEIGHT OF 1200 KG / 2650 LBS.
2. LIFT WEIGHT FOR AT LEAST 5 MINUTES, CONTINUALLY CHECKING FOR CRACKS, DEFLECTION, OR DISTORTION.
3. REMOVE WEIGHT AND RE-INSPECT SLING, CHECKING FOR STRESS CRACKS, BENDING, OR DISTORTIONS.

INSPECTOR: Matthew Jackson

TESTER: 3000/BS

S.N.: 2017166

DATE: 6/5/2016

PD

DART
AEROSPACE

190 S. Danebo Ave., Eugene, OR. 97402
1-800-556-4166
e-mail: sales@dartaero.com
dartaerospace.com

TITLE

HOISTING FLANGE MGB

DWG NO.

RBW6305G00431-3G

REV

4

CUSTOMER 1 OF 1